



## **FISCAL YEAR 2011 APPROPRIATIONS REQUEST**

As submitted to the Subcommittee on Energy on Water Development on March 26, 2010:

### **U.S. Department of Energy**

#### **Office of Fossil Energy:**

**Recipient:** Sunbury Generation, LP

**Location:** PO Box 517, 2384 N. Old Trail Road, Shamokin Dam, PA 17876

**Amount Requested:** \$20,000,000

**Project Description:** The project will install a 20 megawatt carbon capture system produced by Calera Inc. on the Sunbury Generation power plant. The Calera process will take the flue gas from the power plant and combine it with brine waste waters including those produced by local natural gas drillers in the Marcellus Shale, where wastewater treatment is crucial. Through a chemical process, the CO<sub>2</sub> in the flue gas, as well as criteria pollutants like sulfur dioxide, nitric oxide, and mercury will be captured in a carbonate form. This form can be classified as a highly reactive limestone used in the cement market. \$3 million dollars of the funds will be spent on brine exploration by Schlumberger in central Pennsylvania and the other \$17 million will be spent on engineering and building the carbon capture system at the power plant. This will be one of the first commercial-scale demonstration projects of this potentially revolutionary technology. In addition, this would be a retrofit project; retrofitting existing pulverized coal plants with carbon control technology will be crucial to controlling US greenhouse gas emissions, keeping energy costs low, and maintaining a future for coal by allowing a transition to the next generation of power plants. Sunbury has already spent \$50 million on infrastructure for a criteria emissions control project, but had to halt due to the recession; the plant's size, infrastructure built for the initial project, location near waste water, and location near major cement markets make Sunbury the ideal candidate for Calera's carbon capture technology.

**Recipient:** Siemens Energy, Inc.

**Location:** 1310 Beulah Rd, Pittsburgh, PA 15235

**Amount Requested:** \$4,000,000

**Project Description:** This funding will be used for the continuation, for the third year, of the design, analysis, and fabrication of an advanced Solid Oxide Fuel Cell (SOFC) generator. This funding will allow Siemens to complete the design, initiate fabrication, and potentially commence the first test of the generator. The generator will have multi-fuel capability—including propane, gas from anaerobic digesters at waste water treatment facilities, biogas derived from agricultural waste and landfills, coal-bed methane, and hydrogen—will produce

virtually zero emissions, support the DOE Clean Coal Initiative, and will be built, tested, and operated in PA. The project is a collaborative effort between Siemens Stationary Fuel Cells and Pennsylvania State University, which will focus on necessary research and development. By enabling SOFC power systems to operate on alternative and renewable fuels, this program reduces our dependence and reliance on foreign fossil fuels, enhances energy security, produces electricity with near zero emissions, and will broaden applicability of SOFCs and stimulate market acceptance.

Office of Energy Efficiency and Renewable Energy (EERE):

**Recipient:** Bard Holding, Inc.

**Location:** 1167 Bridge St., Philadelphia, PA 15235

**Amount Requested:** \$4,000,000

**Project Description:** Funding will be used to build a full composite algae and soybean biodiesel plant in Pennsylvania, the first in the northeast region of the United States. The facility will have a 60M-gallon biodiesel production plant, 66M-gallon soy solvent extraction plant and a 66M-gallon algae cultivation, harvesting and extraction plant. Biodiesel burns much cleaner than fossil fuels, and increased biodiesel production will reduce the nation's dependence and reliance on foreign oil. \$5,053,000 has already been invested in the project thus far, including engineering fees, securing of permits, and down payments on equipment and land.

**Recipient:** Clarion Industries

**Location:** 143 Fiberboard Road, Shippensburg, PA, 16254

**Amount Requested:** \$750,000

**Project Description:** Funding will be used to convert Clarion's fiberboard plant into a more energy efficient fiberboard plant. U.S. fiberboard is having trouble competing with its more energy-efficient European competitors, which have become much more energy efficient to comply with European greenhouse gas regulations. Clarion will use its funding to implement energy-saving process changes and to purchase energy efficient equipment. Specific improvements that will be made include upgrading the energy efficiency of the plant's refiner, and reducing the natural gas demand from the plant's regenerative thermal oxidizer.

**Recipient:** Delta-Energy PA1

**Location:** 350 Hochberg Road, Monroeville, PA, 15146

**Amount Requested:** \$5,000,000

**Project Description:** Funding will be used to build one reactor of a two-reactor waste tire-to-energy plant. Delta's unique process converts waste tire chips to carbon black, oil, and butane gas. The process is modular, and a single module will process 25-30 tons of waste tires per day. The process replaces the need to dispose of waste tires in landfills, or through burning of the waste tire chips. The process creates a value-added benefit by producing hydrocarbon oil that has been demonstrated to act as a solvent to increase production in oil and gas wells. The process also recovers carbon black that can be incorporated into tires. The extracted material has been qualified as replacement for virgin carbon black in automotive and conveyor belt applications, such as coal mine conveyor belts.

**Recipient:** East Penn Manufacturing, Inc.

**Location:** Deka Rd, Lyon Station, PA 19536

**Amount Requested:** \$1,000,000

**Project Description:** This funding will be used for research into the development of advanced lead-acid batteries for use in applications such as hybrid electric vehicles, renewable energy storage, and electrical grid stabilization. Unlike existing batteries, this project will research the development of "bipolar" fabrication method and design rather than a "mono-polar" electrode battery design. Bipolar batteries require fewer components, and therefore weigh less and have a smaller volume than other advanced batteries. Bipolar batteries will also be more affordable, recyclable, safer to operate, need less monitoring and sophisticated cell balancing components, and have a well-established manufacturing infrastructure.

**Recipient:** Keystone Energy Technology Enterprise Center, Inc. (KETEC)

**Location:** 100 East Seventh St., P.O. Box 137, Mt. Carmel, PA 17851

**Amount Requested:** \$1,000,000

**Project Description:** Funding will be used to acquire and retrofit a cigar factory as a LEED-rated High Performance Building. The building will be used to house KETEC offices, research labs, conference spaces, and made-to-order office spaces for incubating companies. A telepresence center will unite KETEC occupants with energy researchers and businesses around the world, and will enable ready access to global developments in energy fields. KETEC will use the National Business Incubator's Association's incubator model to develop companies that provide green-collar jobs in a historic coal region where unemployment currently stands at 10.4%.

**Recipient:** Marywood University

**Location:** 2300 Adams Avenue, Scranton, PA, 18509

**Amount Requested:** \$552,000

**Project Description:** Funding will be used by Marywood University and Simplex Industries to initiate a research and development project that will determine the viability of manufacturing net-zero energy homes. Net-zero homes are residential structures that produce as much energy from renewable sources as they consume. Marywood and Simplex will design, manufacture, and test the use of renewable energy and energy-efficient technologies in a net-zero energy home ("N-ZEH"), a 1,000 square foot, residential, high performance, green building prototype on the Marywood campus.

**Recipient:** Ogontz Avenue Revitalization Corporation

**Location:** 1536 Haines Street, Philadelphia, PA, 19126

**Amount Requested:** \$42,875,000

**Project Description:** Funding will be used for the Ogontz Avenue Revitalization Corporation's (OARC) Urban Energy Conservation Program, which will focus on energy consumption, consumer education, and economic growth. This program will provide 15,000 homes with energy efficient products and services, will feature an educational component for consumers to effectively manage energy usage, and will create nearly 200 "green jobs". This project is estimated to save participating homeowners \$230 annually on their utility bills.

**Recipient:** Philadelphia Industrial Development Corporation

**Location:** 2600 Centre Square West, 1500 Market Street, Philadelphia, PA 19102

**Amount Requested:** \$3,100,000

**Project Description:** Funding will be used to outfit new laboratory facilities and to hire personnel to develop and commercialize a unique platform technology (Innlay™ Technology) that will reduce bio-fouling of marine vessels. This initiative will support the development of Innlay Technology to target marine fouling, which is the undesired accumulation of microorganisms, algae, and animals on structures submerged in water. Marine fouling can reduce fuel and energy efficiency of marine vessels by 40-50%, can increase drag by 60%, and can decrease speed by 10%. At The Navy Yard in Philadelphia, Innova Materials-the award winning Philadelphia-based company now commercializing the Innlay technology-will develop, test, and commercialize the Innlay Technology to eliminate the problem of marine fouling on ships. Successful development of high-performance, low-cost marine antifouling technology will have broad implications for the cost of international shipping and large increases in energy efficiency leading to reduced fuel consumption.

**Recipient:** Pennsylvania State University

**Location:** 304 Old Main, University Park, PA 16802

**Amount Requested:** \$1,000,000

**Project Description:** Funding will be used to develop a second 3,000 horsepower hybrid locomotive prototype that will be tested for Norfolk Southern Railroad's line of road applications, building upon the successes of the first 1,500 horsepower prototype Engine 999, completed after three years of testing between Penn State University, the Federal Railroad Administration, the Department of Energy, and Norfolk Southern. The goal of this project is to develop a freight railroad hybrid locomotive that will be capable of recovering enough dynamic braking energy so that one day this technology can be used in a commercial line of road applications.

**Recipient:** Pirox, LLC

**Location:** 700 Fifth Ave., New Brighton, PA 15066

**Amount Requested:** \$1,250,000

**Project Description:** Funding will be used for the initial capital costs for a demonstration plant to manufacture high purity magnetite. Magnetite can be used for environmental applications such as removing sulfur dioxide and mercury emissions from the coal burning process, ensuring safe coatings with aluminum or zinc bases, and even to purify water and food. Pirox's existing plant is not large enough to meet demand, and funding will be used to ensure the plant can expand, and continue providing jobs in Beaver County, PA.

**Recipient:** Saint Francis University Renewable Energy Center

**Location:** PO Box 600, Loretto, PA 15940

**Amount Requested:** \$200,000

**Project Description:** Funding will be used to purchase equipment to measure available wind resources at 100 feet. Currently, the National Renewable Energy Lab and Pennsylvania have wind maps based on measurements taken at 50 meters, but current wind turbines are being built to 100 meters. This equipment will allow the Saint Francis University Renewable Energy Center to assist Pennsylvania landowners in analyzing their wind resources, thereby providing wind

developers with the data needed to demonstrate return on and secure financing for more community wind energy projects.

**Recipient:** Susquehanna University

**Location:** 514 University Avenue, Selinsgrove, PA 17870

**Amount Requested:** \$420,000

**Project Description:** Funding will be used for a Renewable Energy Feasibility Study and Resources Assessment at Susquehanna University in Pennsylvania. The university is currently studying the feasibility of converting its central heating plant from bituminous coal to an alternative energy source or clean coal technology. Fuel sources and new technologies under consideration include biomass (wood chips), solar, natural gas and clean coal technology, any of which could be used in conjunction with a new co-generation system to produce electricity as well as steam. This project has significant implications for Susquehanna's continued ability to contribute to the region's economic stability and regional vibrancy.

**Recipient:** West Chester University

**Location:** Filano Hall, Room 101, West Chester, PA 19383

**Amount Requested:** \$1,000,000

**Project Description:** Funding will be used to support West Chester University's comprehensive transformation of its campus heating and cooling systems from traditional power sources (coal, natural gas and electricity) to geothermal, significantly reducing greenhouse gas emissions. The funding will be used to support engineering and design, in-house production management, and piping for thermal wells.

**Recipient:** WindGen

**Location:** 301 Broadway, Suite 201, Bethlehem, PA 18015

**Amount Requested:** \$1,000,000

**Project Description:** Funding will be used to build a prototype wind turbine that uses permanent magnetic technology. This technology will allow the turbines to run without using electricity. WindGen plans to create its prototype in Bensalem, PA and will manufacture wind turbines for retail sale in Fairless Hills, PA. The company will retool a former, shuttered U.S. Steel plant. According to WindGen, upon completion of the plant's outfitting, WindGen will hire over 150 employees for the manufacturing of wind turbines.

#### EERE Solar:

**Recipient:** Flabeg Solar Corporation (U.S.)

**Location:** 2201 Sweeney Drive, Clinton, PA 15026

**Amount Requested:** \$2,000,000

**Project Description:** Funding will be used to development and test a solar trough mirror prototype that is larger, less expensive, more efficient, and more robust than current trough mirror technology to meet the demands of the U.S. market. To make solar power competitive with traditional power in the U.S., solar fields must be considerably larger (250MW) than they are in Europe (50MW); this project will develop the trough mirrors that can be used in these larger solar fields.

**Recipient:** Innovative System Engineering

**Location:** 985 Mearns Road, Mearns Park, Warminster, PA 18974

**Amount Requested:** \$1,503,263

**Project Description:** This project will establish a high volume production facility for Nano-structure High Energy Density Capacitors (HEDCAPs), utilizing technology for single storage capacitors licensed from Lawrence Livermore Labs. The project goal is to establish a high volume production facility for HEDCAPs, as well as the associated applied research into improved methods and materials for manufacturing capacitors with 500-800 times the energy density of current capacitors or 5-10 times the energy density of current super-capacitors. The proposed HEDCAPs, by efficiently storing and buffering electricity and by lowering inductive and resistive heat loss, can reduce the amount of electricity used in most electrical devices by up to 15 percent. HEDCAPs can be bonded directly to solar panels and solar cells, creating a single unit that both generates and stores electricity, thereby creating highly usable and stable sources of electricity for the grid.

**Recipient:** PPG

**Location:** 4325 Rosanna Drive, Allison Park, PA 15101

**Amount Requested:** \$5,000,000

**Project Description:** Funding will be used to continue developing a process to make photovoltaic (PV) solar energy cells as fast as PPG currently produces flat glass. PPG proposes to apply thin-film PV layers directly to glass in line with the current large-scale glass manufacturing process to cut redundant heating steps and significantly increase output volumes.

Office of Science:

**Recipient:** Bucknell University

**Location:** 701 Moore Avenue, Lewisburg, PA 17837

**Amount Requested:** \$1,250,000

**Project Description:** Funding will be used for the "Bucknell University Marcellus Shale Research Initiative." This critical initiative will provide interdisciplinary energy research and regional outreach efforts in response to the emergence of the current massive effort to tap the reserves of natural gas found within the Marcellus Shale formation. The primary objective of this request would be to support Bucknell faculty and regional partners in the analysis of the scientific, economic, and social impact of natural gas drilling within the Marcellus Shale region. This balanced science based research and outreach project will be focused on environmental watershed impact analysis, potential positive and negative impacts of drilling on rural communities, mineral rights issues, and the potential need for environmental remediation of water resources.

**Recipient:** Lehigh University

**Location:** 5 E. Packer Avenue, Whitaker 318, Bethlehem, PA

**Amount Requested:** \$3,150,000

**Project Description:** Funding will be used for Lehigh University's Energy Systems Engineering Institute to support research and technology. The initiative will be a university-based program

where the Electric Power Research Institute (EPRI) and energy companies partner with university faculty to address critical game changing research needs, while integrally developing the next generation of leaders and innovators for the energy industry. The institute's research will focus on four targeted initiatives: electric power generation, and access to clean and competitive energy using clean coal technologies; alternative fuels, and reducing dependence on foreign fossil fuels; environmental impacts on energy generation and renewable; and intelligent grid design and optimization.

**Recipient:** Pennsylvania State University

**Location:** 117 Old Main, University Park, PA 16802

**Amount Requested:** \$600,000

**Project Description:** Funding for this project will support research aimed at maximizing energy efficiency and reducing carbon emissions in existing buildings. The project will include a survey of existing energy production and distribution systems and commercial, industrial, and residential energy users in the Navy Yard and its environs, and will develop research-based strategies for incorporating clean district energy systems. This project is an integral component in the ongoing development of the Navy Yard in Philadelphia, a district energy site encompassing newly constructed and retrofitted commercial, industrial, and residential facilities that utilize diverse energy sources.

Office of Energy Efficiency and Renewable Energy (programs):

I urge the Subcommittee to provide maximum funding for all EERE projects in FY2011. The United States must regain and then maintain dominance in renewable energy research and manufacturing, a field in which we once led the world. Renewable energy and energy efficiency investments are major drivers of job growth, and are key to reducing our energy demand, our greenhouse gas emissions, and our dependence on imported oil. In particular, I urge the Subcommittee to provide maximum funding for Solar Energy, Wind Energy, Geothermal Technology, Water Power, and Vehicle Technologies, and Industrial Technologies programs. In addition, I urge the Subcommittee to fully fund all subprograms within the Weatherization and Intergovernmental Activities line:

- Weatherization Assistance Grants
- State Energy Program
- International Renewable Energy Program
- Tribal Energy Activities
- Renewable Energy Production Incentive
- Energy Efficiency and Conservation Block Grants
- Energy Efficient Appliance Rebate Program

I also urge the Subcommittee to increase funding in the following programs:

- The Technical Guidance and Assistance subprogram line within the Federal Energy Management Program (FEMP) from \$10,000,000 to \$15,000,000. This program is critical to making the Federal government more energy efficient to reducing its greenhouse gas emissions.

- The International subprogram line within the Program Support line item from \$25,000,000 to \$50,000,000. In order to promote U.S. energy security and combat global climate change, we must not only develop technologies that will make a low-carbon economy possible in the U.S., but lay the groundwork for the adoption and consumption of those technologies abroad, particularly in China and India. The substantial increase in funds I am urging here reflects the importance of large-scale international clean energy investment both to our economy and to our global environment.

**U.S. Israel Energy Program:** I urge the Subcommittee to provide \$10 million within the Energy Efficiency and Renewable Energy account for the Department of Energy to administer grants to American and Israeli energy research institutions to facilitate collaboration between our the nations in the field of renewable energy research. The U.S. Israel Energy Program was authorized in the Energy Independence and Security Act of 2007. The Israeli government has agreed to provide matching funds for this program.

Office of Fossil Energy (programs):

**National Energy Technology Lab (NETL):** NETL works with the coal, oil, and natural gas industries to develop safer and more effective methods for developing low-cost, clean, highly efficient technologies. The lab is responsible for more than 1,400 research projects in 47 States and in 40 foreign countries, most involving the development of advanced coal, oil, and natural gas technologies. I urge the Subcommittee to increase the funding for NETL above the President's Budget request in the following areas and for the following amounts:

- Program Direction: increase FY11 funding for Program Direction to \$138,900,000, which is \$18,475,000 above the President's request. The increased funds will allow NETL to support approximately 60 FTEs currently responsible for fossil energy programs under the Recovery Act.
- Carbon Sequestration: increase the FY11 funding for Carbon Sequestration to \$147,000,000, which is \$4,000,000 above the President's request. This will allow NETL to continue its vital efforts in both geologic storage of CO<sub>2</sub> and conversion of CO<sub>2</sub> to other materials.
- Natural Gas and Petroleum-Oil Technology Programs: restore funding to FY10 levels (Natural Gas Technologies: \$17,833,000 (of which Methane Hydrates received \$15,000,000); Petroleum – Oil Technologies: \$20,000,000). The President's Budget provides no funding for these programs. Restoring these funds would support nearly 300 total jobs in PA and WV, and allow it to continue important research on unconventional sources of natural gas and oil.
- Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research Fund: restore funding to FY10 levels (\$50,000,000). Zeroing out these funds would mean a loss of jobs in PA and WV, and diminish support to universities and students.

**Clean Coal Research and Development Demonstration Program:** I urge the Subcommittee to provide adequate funding for clean coal research, development and deployment is critical to addressing climate change, as carbon dioxide is the primary greenhouse gas and natural by-



product of combusting coal, our nation's most abundant energy feedstock. Vital to using coal cleanly is the research and development of carbon capture and sequestration (CCS) technology. For fiscal year 2010, \$672,383,000 was provided for fossil energy research and development, which includes the Clean Coal Research program. As we must be as aggressive as possible in developing clean applications of coal in light of possible caps on carbon emissions, I urge the Subcommittee to provide maximum funding for the program in fiscal year 2011, which includes the Clean Coal Research program.

**Advanced Integrated Gasification Combined Cycle:** I urge the Subcommittee to increase the funding for this subprogram within the Fuels and Powers Systems program in the Office of Fossil Energy Research and Development, to \$75,000,000 from \$55,000,000. This technology is crucial to ensuring a robust future for coal.

### **U.S. Army Corps of Engineers**

#### **Construction General:**

##### **Delaware River Main Channel Deepening**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$47,862,000

**Project Description:** The project calls for deepening the existing Delaware River Federal Navigation Channel from 40 to 45 feet from Philadelphia Harbor, PA and Beckett Street Terminal, Camden, NJ to the mouth of the Delaware Bay. The existing 40 foot deep Channel restricts the efficient movement of tankers, dry bulk carriers, and container vessels through the ports along the Delaware River. These conditions now result in significant light loading and lightening costs, as well as vessel delays. The 45 foot deepening project will result in transportation savings to commodities consisting of crude oil imports, iron ore imports, container ship movements and scrap exports. This project is indispensable if the Delaware Valley region is to compete with other deep-water port regions. Since FY99, Congress has appropriated funds for project construction, which commenced on March 1, 2010. Now that the deepening of the Delaware River has begun, it is critical that funding be provided to ensure that the project proceeds efficiently and in the most cost-effective manner possible. Thousands of jobs and billions of dollars are at stake. The Army Corps estimates that this project will cost the federal government around \$232 million, and can complete \$47,862,000 worth of work in FY11.

##### **Locks and Dams 2, 3, and 4, Monongahela River**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$112,000,000

**Project Description:** These locks and dams, the last of the old and undersized locks on the Monongahela River system, are nearly a century old and structurally unstable. The Lower Mon project will replace the fixed crest Braddock Lock and Dam with a gated dam, remove Lock and Dam 3 at Elizabeth and construct two new larger locks at Lock and Dam 4 in Charleroi. There is a real chance that important structural components of these facilities could fail at any time which could devastate waterborne supplies to communities and vital industries, as well as stalling

commerce through the Port of Pittsburgh. The continued viability of the Lower Monongahela River navigation system is vital to southwestern Pennsylvania's economy, as nearly 218,000 jobs are dependent on the river transportation system in this region. This project will provide reliable and safe navigation of the Lower Monongahela River for the next 100 years.

**Emsworth Locks and Dam, Ohio River**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$11,500,000

**Project Description:** The Emsworth Dam, the oldest of the 20 locks and dams on the Ohio River system, is currently in a state of failure. The rehabilitation project is updating the structural components of the dam to ensure continued navigational capability on the Ohio River. The project included replacement of the dam gates, gate hoisting machinery, emergency bulkheads, emergency bulkhead hoists, electrical power and distribution system, and scour protection system. The Emsworth Lock and Dam enables year round navigation on the Ohio River and aids in the transportation of 23,733,840 tons per year. If the Emsworth pool is lost, major industrial facilities dependent on river transportation will be impacted.

**Wyoming Valley Levee Raising and Solomon Creek Flood Protection**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Baltimore, MD

**Amount Requested:** \$8,850,000

**Project Description:** The Wyoming Valley Flood Control Project was designed to avoid a recurrence of the devastation caused to this area by the floods associated with Tropical Storm Agnes in 1972, which caused an estimated \$1 billion worth of damage. The project is located on the Susquehanna River in Luzerne County, Pennsylvania and consists of four contiguous flood control projects that function as one large system. With sufficient funding, the project will also begin to incorporate flood protection for Solomon Creek as a component of this project, as authorized by Section 3142 of WRDA 2007.

**Presque Isle Shoreline Erosion Control**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Buffalo, NY

**Amount Requested:** \$1,500,000

**Project Description:** The shoreline erosion control project at Presque Isle State Park originally involved construction of 55 offshore breakwaters and placement of 560,000 tons of beach sand fill. Each year, approximately 55,000 tons of additional beach sand fill is needed to replace sand displaced by winter storms. The goal of the project is to minimize erosion and promote natural growth in an area of the peninsula known as Gull Point. The project is critical not only to Erie's tourism economy but to maintaining a habitat for an endangered species.

**Bloomsburg Area Flood Damage Reduction Project**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Baltimore, MD

**Amount Requested:** \$2,000,000

**Project Description:** Funds will be used for preliminary engineering and design of a flood protection project for the town of Bloomsburg, Pennsylvania. Bloomsburg is subject to severe flooding from both the Susquehanna River and Fishing Creek, which serve as the southern and northwestern boundary of the town, respectively. Bloomsburg has suffered 33 floods since 1900, including 4 since 1999 which caused significant damage to residential homes and businesses. Average annual flood damages are estimated to exceed \$4.5 million. The proposed floodwall will protect hundreds of residences, major industrial facilities and over 30 businesses.

**Philadelphia Shipyard Flood Damage Reduction**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$6,650,000

**Project Description:** The project is located within the Philadelphia Shipyard near the confluence of the Schuylkill and Delaware Rivers. The seawall extends approximately 7,000 feet along the Delaware River. Most portions of the structure are more than 100 years old. Severe deterioration threatens existing property in this National Register Historic District. The seawall protects adjacent buildings and associated infrastructure, including a U.S. Navy power research facility. The poor condition of the protective seawall severely limits the future redevelopment opportunities at The Navy Yard.

**Fairless Hills Turning Basin**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$1,115,000

**Project Description:** This project involves deepening the Fairless Hills Turning Basin from 35 to 40 feet. Severe flooding events in September 2004 and June 2006 deposited large amounts of sediment in this turning basin, blocking off access to the Port of Bucks and threatening 200 jobs which depend on its navigability. Emergency actions were required to respond to both events, and while the port is open today, I am advised that ships can only access the port at high tide. Deepening the turning basin from 35 to 40 feet will allow for more efficient navigation in this channel and reduce the risk of future blockages.

**Allegheny River Pools 2 and 3 Habitat Restoration**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$100,000

**Project Description:** Funding would allow the Corps of Engineers to analyze the economic and environmental feasibility of restoring aquatic ecosystems in the lower reaches of the Allegheny River, which serves as the headwaters of the entire Ohio River system. Improving ecological attributes in this area, therefore, could offer positive benefits for the entire Upper Ohio River basin.

**Lackawanna River at Scranton, PA**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Baltimore, MD

**Amount Requested:** \$3,241,000

**Project Description:** This project provides 100-year level flood protection for the City of Scranton, Pennsylvania. The initial portion of the project was completed and turned over to the City of Scranton in 2003. However, land acquisition difficulties have created delays in constructing the remaining portions. These delays have increased the overall cost of the project and necessitated the provision of additional federal funds. Funding in FY2011 will be used to complete a non-structural flood risk management plan.

**Lackawanna River at Olyphant, PA**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Baltimore, MD

**Amount Requested:** \$1,500,000

**Project Description:** This project, authorized in the Water Resources Development Act of 1992 and completed in 2006, provides flood control protection for the city of Olyphant, PA through approximately 5,200 feet of levee and floodwall, one closure structure, and interior drainage structures. The Army Corps conducted a risk and uncertainty analysis which indicated that portions of the completed levee may need to be raised to meet Corps certification. Funding is needed to identify solutions and costs to raise the levee and assess the impact on communities outside the line of protection. Funding is also needed to complete the decision document for Dickson City, which is authorized to have the same level of protection as Olyphant.

**Stillwater Lake Dam, Monroe County**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$440,000

**Project Description:** This project involves engineering, design and construction of repairs to the Stillwater Lake Dam in Monroe County, Pennsylvania. The dam has been classified as “high hazard” by the State Department of Environmental Protection and needs repairs both to support recreational activities at the lake and to protect over 3,000 downstream residents. Stillwater Lake is used for education and recreation by the Boy Scouts of America, which serves as a resource for local fisherman and a habitat for wildlife. If the dam is unable to be repaired, the dam will be breached, the lake will be drained and the property will likely be sold and developed, depriving the public and the Boy Scouts of this valuable resource. The Commonwealth of Pennsylvania has committed \$1.8 million to this project and an additional \$440,000 is needed for completion. The project was authorized by Sections 1006 and 5003 of WRDA 2007.

**Ingham Spring Dam/Lake Restoration**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$200,000

**Project Description:** Funding will be used to conduct a study of the Ingham Spring Dam in Solebury Township, PA. Restoration of this dam will improve safety, natural ecosystems and public recreational opportunities. The PA Department of Environmental Protection has conducted annual inspections of the dam and found several deficiencies. The project was authorized by Section 1006 of WRDA 2007.

**Three Rivers Wet Weather Demonstration**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$2 million

**Description:** The Three Rivers Wet Weather Demonstration Program works with 83 communities in the Allegheny County Sanitary Authority service area to improve the quality of Allegheny County's water resources. Three Rivers, a nonprofit organization, focuses on helping communities address the issue of untreated sewage and stormwater overflowing into the region's waterways. To promote the most cost-effective, long-term, sustainable solutions, the organization provides standards for sewer technology, allocates financial grants, educates the public and advocates inter-municipal partnerships.

**Historic Manayunk Canal Restoration**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$100,000

**Project Description:** The restoration of the Historic Manayunk Canal has important environmental, flood control and ecological benefits to the community. Fiscal year 2011 funds will be used to investigate the potential restoration of the Historic Manayunk Canal.

**Toad Creek Restoration**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$150,000

**Project Description:** This funding will be used to evaluate stream restoration opportunities for Toad Creek in the Borough of Topton, PA. The Borough and the Pennsylvania Department of Transportation have performed emergency work to protect their facilities but would like to restore the creek and immediate surrounding area to eliminate the risk if future problems arise.

**Findlay Township**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$2,000,000

**Project Description:** Funding will be used to upgrade and expand the water and sewer infrastructure in the Township of Findlay in Allegheny County, Pennsylvania. These upgrades are necessary to provide adequate water and sewer capacity for residents and businesses and for future residential and business growth in the Township.

General Investigations:**Delaware River Dredge Material Utilization**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$200,000

**Project Description:** This study will explore beneficial uses of dredged material from the Delaware River, including the transfer, transport, drying and re-handling of dredged material as it relates to watershed management, ecosystem restoration, navigation, water quality, abandoned mine reclamation and cover material for landfills. This project was funded in fiscal years 2009 and 2010 and it is critically important that the subcommittee maintain support for this study now that the Delaware River Deepening project has commenced and therefore more dredged material will be created.

#### **Delaware Estuary Environmental Restoration**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$150,000

**Project Description:** This study is to determine if there are any recommendations advisable in the interest of ecosystem and habitat restoration, including oysters, regional sediment management and shoreline erosion control, protection of essential public works, groundwater supply and related facilities, beneficial use of dredge materials and other related purposes.

#### **Upper Ohio River Navigation Study**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$1,200,000

**Project Description:** This study will investigate opportunities for maintaining and improving commercial navigation on the upper Ohio River in Pennsylvania and will evaluate the potential for integrating ecosystem restoration features into long-range plans for the river basin. The main locks at the Emsworth, Dashields and Montgomery Locks and Dams on the Upper Ohio River in Western Pennsylvania are significantly smaller than all other locks on the Ohio River, acting as a traffic choke point and causing carriers to incur extra costs to double lock through the gates. In addition, these structures are all over 70 years old and exhibit signs of structural deficiency. A failure of these structures would severely affect the economy of western Pennsylvania, as over 20 million tons of cargo pass through these locks.

#### **Southeast PA Flood Plain Management Services**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$250,000

**Project Description:** Funding would support an investigation of multiple flooding issues in the counties of Chester, Delaware, Philadelphia, Montgomery and Bucks in Pennsylvania. Identified problem areas will be investigated with new topographic, hydrologic and hydraulic data and modeled accordingly to provide assistance and advice to local governments.

#### **Turtle Creek Watershed Assessment**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$100,000

**Project Description:** Requested funding will allow the U.S. Army Corps of Engineers to study the relationships among downstream stormwater-related problems and their upstream sources –

with an eye towards the best options for upstream solutions. Coupled with on-going, comprehensive, regional stormwater management study and planning, performing the study will eliminate duplication of efforts and maximize protections to existing U.S. Army Corps of Engineers projects.

#### Operations and Maintenance:

##### **Delaware River, Philadelphia to the Sea**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$22,695,000

**Project Description:** This maintenance dredging project is vital to ensuring that commercial and military vessels have reliable and efficient access to Delaware River ports. This project maintains a 96.5 mile channel from Allegheny Avenue in Philadelphia to the Delaware Bay.

##### **Delaware River, Philadelphia to Trenton**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$11,115,000

**Project Description:** This maintenance dredging project ensures the continued navigability of the upper reaches of the Delaware River. Flooding events in the upper Delaware have underscored the need to maintain this channel, as flooding events in June 2006 imposed draft restrictions which severely limited commercial access to the Port of Bucks, the nation's sixth largest steel port.

##### **Schuylkill River**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$11,710,000

**Project Description:** This maintenance dredging project provides for a 6.5 mile 33-foot deep channel on the Schuylkill River from its confluence with the Delaware River to the University Avenue Bridge. This river supports the safe navigation of petroleum and chemical products and its maintenance ensures an acceptable level of navigation service. This project also supports the import of high value products and supports several thousand jobs in the local community.

##### **Allegheny River Locks and Dams**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$48,888,000

**Project Description:** This funding will allow for the continued operation and maintenance of the navigation system on the Allegheny River. The Allegheny River system of locks and dams enables year round navigation that allow for transportation of an average of 3,115,000 tons per year. An economic impact study found that the river system in southwest PA supports 45,000 direct jobs and 218,000 total jobs, contributing to the economic well-being of the region.

**Monongahela River Locks and Dams**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$35,528,000

**Project Description:** This funding will allow for the continued operation and maintenance of the navigation system on the Monongahela River. The Monongahela River system of locks and dams enables year round navigation that allow for transportation of an average of 27,660,000 tons per year. Approximately 15 percent of the nation's steel production relies on the coke produced at facilities along this river. An economic impact study found that the river system in southwest PA supports 45,000 direct jobs and 218,000 total jobs, contributing to the economic well-being of region.

**Ohio River Locks and Dams**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$64,023,000

**Project Description:** This funding will allow for the continued operation and maintenance of the navigation system on the Ohio River. The Ohio River system of locks and dams enables year round navigation that allows for transportation of an average of 66,689,000 tons per year through the Pittsburgh District. An economic impact study found that the river system in southwest PA supports 45,000 direct jobs and 218,000 total jobs, contributing to the economic well-being of the region.

**Hopper Dredge McFarland**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$12,000,000

**Description:** The Hopper Dredge McFarland is one of four oceangoing hopper dredges owned and operated the Army Corps of Engineers as its minimum fleet for national security. The *McFarland's* two-fold mission is to be ready to dredge for emergency and national defense purposes and for planned dredging in the Delaware River and Bay and along the East and Gulf Coasts. In December 2009, the *McFarland* was called to Louisiana to perform emergency dredging, as recent weather had caused large amounts of sediment to flow from the upper parts of the Mississippi River and be deposited along the shipping channels in the lower sections of the river. When the private dredging industry was unable to meet their demands, the Corps summoned the *McFarland*.

**Independent Agencies****Mid-Atlantic River Basin Commissions:**

**Recipient:** Mid-Atlantic River Basin Commissions (Susquehanna River Basin Commission, Delaware River Basin Commission, Interstate Commission on the Potomac River Basin)

**Location:** Harrisburg, PA (Susquehanna River Basin Commission), West Trenton, NJ (Delaware River Basin Commission), Rockville, MD (Interstate Commission on the Potomac River Basin)



**Amount Requested:** \$2,365,000 (\$1,000,000 for Susquehanna River Basin Commission, \$715,000 for Delaware River Basin Commission, \$650,000 for Interstate Commission on the Potomac River Basin)

**Project Description:** Funding is necessary to fulfill the federal government's obligation to provide an equitable share of funding for the three commissions, as authorized under each commission's compact and by Section 5019 of WRDA 2007. The Commissions will use this funding to implement critically important water resources management projects and activities in the national interest, such as flood control and flood loss reduction, water supply reliability, habitat restoration, water quality improvement, water allocation, water monitoring and assessment, drought coordination and water resource planning.

**Appalachian Regional Commission:** I urge the Subcommittee provide \$105 million for the Appalachian Regional Commission (ARC). This level of funding would benefit ARC's non-highway community and economic development programs. The commission's programs are designed to help the 13-state Appalachian region achieve socioeconomic parity with the nation. ARC funding provides communities and small businesses with vital planning, technical assistance, training and business loan funding. ARC non-highway dollars assist in lowering the local matching requirements for our most distressed communities, who otherwise would not be able to participate in federal economic and community development programs.